

ABSTRACT

Based on the fact that by causing an appropriate current flow on a virtual curved surface between a current source and an observation surface, an electromagnetic field generated by the current source can be recovered, and that as the curved surface comes closer to the true current source, current distribution on the curved surface becomes smaller, Bayesian estimation of the current source that recovers the observed data is performed. In this estimation, the fact that the model posterior probability attains the maximum when the curved surface includes the current source is utilized, that is, the model posterior probability is considered, to estimate the position of the current source including the depth direction. When observation data obtained by other observation means is available simultaneously, such information is incorporated in hierarchical prior distribution for Bayesian estimation, to enable estimation with higher precision.